With respect to claim 1, claim 1 requires the steps of identifying first type components in a first section of the first schematic, examining the second schematic to identify at least one component of a second type that is associated with the identified components of the first type and rendering identified instances of the second type of component accessible. Because the claim 1 method steps do not form the first and second schematics and nevertheless perform process steps on the first and second schematics, claim 1 necessarily assumes that the first and second schematics exist prior to the claim 1 process steps commencing. In other words, because the first claim 1 process step is performed using the first schematic and the second claim 1 process step is performed using the second schematic, claim 1 requires that the first and second schematics must exist prior to the claim 1 process commencing.

As recognized by the Office Action, Heimlich fails to teach or suggest examining a second schematic to identify instances of components of a second type that are associated with identified components of a first type and also fails to teach or suggest rendering identified instances of the second type accessible.

With respect to Hodorowski, Hodorowski fails to teach what Heimlich lacks. In this regard, Applicant has examined the sections of Hodorowski cited in the Office Action as teaching the claim 1 limitations and fails to see any teachings or suggestions to identify second type components in a second schematic that are associated with first type components in a first schematic and rendering the second type components accessible. Instead, the cited sections appear to teach various things generally unrelated to the limitations missing in Heimlich. The most and seemingly only possibly relevant portion of the text cited in the Office Action against claim 1 appears to include col. 30, lines 14-20. Nevertheless, even this section of Hodorowski fails to teach the limitations missing in Heimlich as explained hereafter.

As an initial matter, Hodorowski teaches process steps that occur <u>prior to first and second schematics of different types existing</u> and therefore Applicant is unclear how Hodorowski could possibly teach the claim 1 invention that requires that first and second schematics of different types exist prior to the claimed method steps commencing. Applicant recognizes that Hodorowski does contemplate two different types of schematics including a logic diagram (see Fig. 13 and accompanying text at

col. 26, line 11 through col. 29, line 22) and a physical diagram (see Fig. 14 and accompanying text beginning at col. 29, line 23). Hodorowski teaches that a CAD system can be used to specify the logical diagram and can then be used separately to specify the physical diagram (see Hodorowski's col. 29, lines 45-48).

After a user specifies a logic diagram and corresponding elemental functions via the CAD system, Hodorowski teaches that the CAD system may provide an aide to the user for use in specifying the physical diagram. With respect to the physical diagram specifying aide, Hodorowski teaches that "First, a menu 356 is invoked providing catalogue numbers and descriptions of commercially available modules for the elemental functions.... In one embodiment, the menu 356 provides only those modules that could be used to implement the elemental function previously provided on the logical diagram. Typically there will be more than one module that may implement a given elemental function, and the programmer will have considerable flexibility in combining elemental functions to be implemented on a single module" (see col. 29, lines 47-62).

Thus, at col. 29, lines 47-62, Hodorowski teaches that the aide identifies second type components (i.e., modules) in a database that may implement elemental functions specified by the first schematic and provides the components or modules in a menu. After the menu is provided, Hodorowski teaches that the user can select menu components to be added to the physical diagram (i.e., to the second schematic) (see Hodorowski's col. 29, lines 63-67) to specify the physical diagram. In other words, this section of Hodorowski teaches that components/modules that correspond to first schematic components (i.e., that correspond to icons representing elemental functions on the logic diagram) are identified in a database of modules and <u>not in a second schematic/diagram</u> and that the modules are identified <u>prior to existence of the second schematic</u>/diagram (i.e., prior to existence of the physical diagram) and indeed pursuant to specification of the second schematic/diagram (i.e., pursuant to specification of the physical diagram).

In addition, Hodorowski teaches that to completely specify the physical diagram, physical icons have to be added to the specified modules and that, again, a specifying aide may be provided for this purpose that works in a fashion similar to

that described above to aide in module selection. This aide for continuing to specify or create the physical diagram (i.e., a second schematic) is described at least in part at col. 30, lines 14-20 (i.e., at the only possible relevant section of the Hodorowski text cited against claim 1) wher Hodorowski states that "A second menu... provides a collection of physical icons 364 representing the outward appearance of the elemental functions used in the logical diagram 250. Generally the physical icons 364 differ from the logical icons 254 in that they are representative of appearance of the physical device rather than its logical operation." Hodorowski goes on to teach that "In the case where the logical diagram 250 is prepared first, only those icons 364 associated with discrete logical icons 254 shown in the logical diagram 250 are presented in the menu.... Through the use of cursor 262 physical icons 364 are selected form the menu 362 and places within the outlines of the modules 354, 350 and 352." Thus, her again, the logical icons in the logical or first diagram/schematic are used to identify physical icons (i.e., components of a second type) in a database, not to identify physical icons in a second schematic. Indeed, once again, these menu generating steps occur in Hodorowski's process prior to any second schematic/diagram even existing.

Thus, Hodorowski and specifically the sections cited against claim 1 teach a process for specifying first and second schematics including different components types and therefore cannot possibly teach a method that initially assumes that the first and second schematics exist as required by claim 1. More specifically, Hodorowski fails to teach or suggest the examining and rendering steps of claim 1. For at least this reason Applicant strongly believes claim 1 and claims dependent therefrom are patently distinct over Hodorowski and Heimlich combined.

With respect to claim 70, the six lines in Heimlich cited against claim 70 clearly do not teach selection of mechanical schematics or identifying electrical components in an electrical schematic that are associated with selected components in mechanical schematics. In fact, Heimlich fails to teach or suggest any process that includes mechanical schematics (i.e., schematics illustrating mechanical components). In this regard, Heimlich teaches a process related to simulating design of an integrated circuit or a printed circuit board which have nothing to do

with mechanical components of schematics.

In addition, as recognized by the Examiner, Heimlich fails to teach or suggest a visual interface, displaying mechanical segments and displaying identified electrical components.

Applicant recognizes that Hodorowski teaches displaying two different types of schematics via a display but not in the context of the method claimed in claim 70. In addition, the schematics or diagrams displayed by Hodorowski do not include electrical schematics. Instead, Hodorowski teaches a logical diagram (see again Fig. 13) and a physical diagram (see Fig. 14), neither of which is akin or closely resembles an electrical schematic.

For at least the above reasons Applicant believes that claim 70 and claims dependent therefrom are patently distinct over the cited references.

Applicant has introduced no new matter in making the above amendments and antecedent basis exists in the specification and claims as originally filed for each amendment. In view of the above amendments and remarks, Applicant believes claims 1-34 and 70-74 of the present application recite patentable subject matter and allowance of the same is requested. No fee in addition to the fees already authorized in this and accompanying documentation is believed to be required to enter this amendment, however, if an additional fee is required, please charge Deposit Account No. 17-0055 in the amount of the fee.

Respectfully submitted,

Ruven E Brooks

Date: 10-28-04

By: Michael A. Jaskolski
      Reg. No. 37,551
      Attorney for Applicant
      QUARLES & BRADY, LLP
      411 East Wisconsin Avenue
      Milwaukee, WI. 53202-4497
      (414) 277-5711

QBMKE\5651881.1